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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/825,580	04/02/2001	Michael J. Eppihimer	08702.0006-00000	9952

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EXAMINER	
GAMBEL, PHILLIP	
ART UNIT	**PAPER NUMBER**
1644	

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/825,580	EPPIHIMER ET AL.
	Examiner	**Art Unit**
	Phillip Gambel	1644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20,25-27,29-40 and 43-57* is/are pending in the application.

4a) Of the above claim(s) *29, 30, 43, 44, 46-49* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20,25-27,31-40,45 and 50-57* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 6/15/05 has been entered.

Applicant's amendment, filed 6/15/05, has been entered.
Claims 1, 25, 31, 45 and 57 have been amended.
Claims 28, 41 and 42 have been canceled. Claims 21-24 have been canceled previously.

Claims 1-20, 25-27, 29-40 and 43-57 are pending.

The election of the species "hypertension" has been acknowledged.

Claims 29, 30, 43, 44, 46-49 have been withdrawn from consideration as being drawn to the non-elected species.

Claims 1-20, 25-27, 31-40, 45 and 50-57 are under consideration as they read on the elected species, hypertension, though now applicant has amended the claims to recite "hypertension" in the independent claims.

2. The text of those sections of Title 35 USC not included in this Action can be found in a prior Action.
This Action will be in response to applicant's amendment, filed 6/15/05.
The rejections of record can be found in the previous Office Action.

Applicant's arguments, filed 6/15/05, and the examiner's rebuttal are essentially the same as of record.

A more thorough review of applicant's arguments and the examiner's rebuttal of record can be found in the previous Office Actions. For example, see the Office Action, mailed 3/17/05.

3. Upon reconsideration of applicant's amended claims, filed 6/15/05, the previous rejection under 35 U.S.C. § 112, first paragraph, because the specification, enablement with respect to the recitation of "any "PSGL-1 protein or a fragment thereof" has been withdrawn.

4. <u>New Ground of Rejection</u>

Claims 1-20, 25-27, 31-40, 45 and 50-57 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1-20, 25-27, 31-40, 45 and 50-57 are indefinite in the recitation of "antagonizing P-selectin or E-selectin" because the claims fails to state the function which is to be achieved. The terms "antagonizing" is relative in nature in the absence of a measurable or testable endpoint and, in turn, renders the claims indefinite. The phrase "antagonizing P-selectin or E-selectin" is not defined by the claims and one of ordinary skill in the art would not be reasonably apprised of the metes and bounds of the invention

Applicant is reminded that the amendment must point to a basis in the specification so as not to add any new matter. See MPEP 714.02 and 2163.06

5. Claims 1-4, 8-13, 16-18, 25-27, 45-47, 50-53 and 57 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Cummings et al. (U.S.Patent No. 5,464,778) (see entire document).
and as further evidenced by The Merck Manual of Diagnosis and Therapy, Seventeenth Edition, edited by Beers et al., Merck Research Laboratories, Whitehouse Station, NJ, 1999) for the reasons of record.

Applicant's arguments, filed 6/15/05, have been fully considered but are not found convincing essentially for the reasons of record and the evidence of record in response to applicant's assertions concerning "hypertension".

Applicant's arguments, filed 6/15/05, and the examiner's rebuttal are essentially the same as of record.

Again, applicant argues in conjunction with several legal citations that Cummings et al. does not teach or suggest that hypertension is necessarily associated with the various acute and chronic conditions disclosed in Cummings et al. but rather is limited to "may be caused by hypertension".

Again, it is noted that treating "atherosclerosis" is consistent with the instant specification (See page 6-7, overlapping paragraph of the instant specification).
Again, in response to applicant's assertions that the Cummings et al. does not teach or suggest that hypertension is necessarily associated with the various acute and chronic conditions disclosed in Cummings et al., sections of the The Merck Manual of Diagnosis and Therapy, Seventeenth Edition were provided as evidence that the prior art targeted conditions and diseases were associated with hypertension.

The Merck Manual notes that arterial hypertension is a complication of atherosclerosis, cerebrovascular insufficiency with stroke and renal failure (see page 1632, Symptoms and Signs; see Atherosclerosis on pages 1654 - 1658, including page 1656, Hypertension; Cerebrovascular Disease on pages 1417-1424).

While applicant notes that prior art targeted patient populations do not necessarily have or develop hypertension, one of ordinary skill in the art would have immediately envisaged at the time the invention was made that the prior art treatment of ischemia-reperfusion injury, atherosclerosis and strokes was targeting patients with hypertension.

Fgor example, the Merck Manual notes that
"Hypertension is the most important risk factor predisposing to stroke";
"It is one of three risk factors, along with cigarette smoking and hypercholesterolemia predisposing to coronary atherosclerosis";
(see Prognosis on page 1634, column 1.
"Hypertension is a more important risk factor for stroke than for atherosclerotic heart disease
(see page 1632, column 1, paragraph 1 of Pathology); and
"Heart failure, symptomatic coronary atherosclerosis, cerebrovascular disease and renal failure require urgent and judicious antihypertensive therapy
(see page 1634, column 2, paragraph 1 of Antihypertensive drug therapy).

The following of record is reiterated for applicant's convenience.

Cummings et al. teach the use of PSGL in the treatment of acute and chronic conditions associated with leukocyte adherence, inflammation and coagulation, including ischemia-reperfusion injury, atherosclerosis and strokes (see column 18, paragraphs 5-8; columns 19-20). Cummings et al. teach the properties and the use of PSGL (column 9-18), including protein fragments thereof (e.g. column 20, paragraph 3) as well as the administration and monitoring according to one of ordinary skill in the art (column 21, paragraphs 2-3).

Although the reference is silent about "hypertension" per se, applicant is reminded that no more of the reference is required than that it sets forth the substance of the invention. The persistently high arterial blood pressure or hypertension associated with the various acute and chronic conditions disclosed in the reference would have been inherently inhibited or treated by the administration of inhibitory PSGL-1 and fragments as taught by Cummings et al. Further, the claimed structural limitations (SEQ ID NO: 2 and P-selectin binding domains thereof) and the claimed functional limitations (e.g. inhibiting wherein the thrombus inducing agent is LTC_4) would have been inherent properties of the referenced methods of treating various conditions such as ischemic-reperfusion injury, atherosclerosis and strokes with PSGL and fragments thereof and the properties of said PSGL and fragments thereof at the time the invention was made.

Given the referenced treating of various conditions associated with thrombotic complications and in particular, ischemia-reperfusion injuries, atherosclerosis and strokes, it would have been inherent that such patients would have been identified as being subjects at risk of thrombosis. Cummings et al. also teach dosage ranges (e.g. 0.2 to 30 mg/kg body weight) for the treatment of said disorders (column 21, paragraph 1). Although this paragraph discloses carbohydrate inhibitors, the ordinary artisan would have immediately envisaged that this broad dosage range would have included other inhibitors (e.g. column 18, paragraph 4) as dictated by the specific condition (column 21, paragraphs 2-3). Also, given the nature of the specific conditions of, ischemia-reperfusion injuries, atherosclerosis and strokes, one of ordinary skill at the time the invention was made would have provide the PSGL prior to thrombus formation in subjects having hypertension.

Although the reference is silent about "a subject having hypertension" per se, it does not appear that the claim language or limitations result in a manipulative difference in the method steps when compared to the prior art disclosure. See Bristol-Myers Squibb Company v. Ben Venue Laboratories 58 USPQ2d 1508 (CAFC 2001). "{i}t is a general rule that merely discovering and claiming a new benefit of an old process cannot render the process again patentable." In re Woodruff, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990). The mechanism of action does not have a bearing on the patentability of the invention if the invention was already known or obvious. Mere recognition of latent properties in the prior art does not render nonobvious an otherwise known invention. In re Wiseman, 201 USPQ 658 (CCPA 1979). Granting a patent on the discovery of an unknown but inherent function would remove from the public that which is in the public domain by virtue of its inclusion in, or obviousness from, the prior art. In re Baxter Travenol Labs, 21 USPQ2d 1281 (Fed. Cir. 1991). See MPEP 2145.

On this record, it is reasonable to conclude that the same patient is being administered the same active agent by the same mode of administration in the same amount in both the instant claims and the prior art reference. The fact that applicant may have discovered yet another beneficial effect from the method set forth in the prior art does not mean that they are entitled to receive a patent on that method.

Applicant's arguments are not found persuasive.

6. Claims 1-20, 25-27, 31-40, 45 and 50-57 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cummings et al. (U.S. patent No. 5,464,778) AND Larsen et al. (U.S. Patent No. 5,840,679) in further view of Blann et al. (Journal of Human Hypertension 11: 607-609, 1997), Araneo et al. (U.S. Patent No. 6,150,348) and DeFrees et al. (U.S. Patent No. 5,604,207) and in further evidence of The Merck Manual of Diagnosis and Therapy, Seventeenth Edition, edited by Beers et al., Merck Research Laboratories, Whitehouse Station, NJ, 1999) for the reasons of record.

Applicant's arguments, filed 6/15/05, have been fully considered but are not found convincing essentially for the reasons of record and the evidence provided of record in response to applicant's assertions concerning "hypertension".

Applicant's arguments, filed 6/15/05, and the examiner's rebuttal are essentially the same as of record.

In addition, applicant's arguments and the examiner's rebuttal concerning the The Merck Manual have been addressed above in the rejection under 35 USC 102.

Again applicant asserts that both Cummings et al. and Larsen et al. both speculate using PSGL for treating various conditions and do not provide teaching or suggestion that hypertension is associated with any of the conditions discussed in these references.

As pointed out previously, given applicant's assertions that Cummings et al. and Larsen et al. do not provide explicitly teaching about hypertensions in the diseases and conditions referenced, The Merck Manual of Diagnosis and Therapy, Seventeenth Edition, edited by Beers et al., Merck Research Laboratories, Whitehouse Station, NJ, 1999) was added in response to applicant's assertions that such conditions do not read on or render obvious treating "subjects having hypertension".

Applicant has argued that Blann, Araneo and DeFrees discuss compounds other than PSGL-1 for treatment and that these references do not teach or suggest that hypertension is necessarily associated with any of the conditions discussed in the primary reference

As discussed previously, Cummings et al. teach the use of PSGL in the treatment of leukocyte adherence, inflammation and coagulation, including ischemia-reperfusion injury, stroke and atherosclerosis (see column 18, paragraphs 5-8; columns 19-20, overlapping paragraph). Cummings et al. teach the properties and the use of PSGL (column 9-18), including protein fragments thereof (e.g. column 20, paragraph 3) as well as the administration and monitoring according to one of ordinary skill in the art (column 21, paragraphs 2-3). The claimed functional limitations would be expected properties of the referenced methods of treating atherosclerosis and stroke with PSGL and fragments thereof.

Cummings et al. differs from the claimed PSGL by not disclosing particular human PSGL sequences and domain structure thereof. Larsen et al. teach the structure, including the domain structure and the use of PSGL-derived fragments which are the same or nearly the same as that claimed (see columns 9-15).

Larsen et al. teach the use of PSGL (e.g., see columns 7-8, columns 13-18 and Examples), including fragments (e.g. columns 9-10) and fragments fused to carrier molecules such as immunoglobulins (e.g. chimeric forms of said PSGL (column 9-10, overlapping paragraph) to treat conditions characterized by P- or E-selectin mediated intercellular adhesion (e.g. see columns 15-16, overlapping paragraph), including its combination with other pharmaceutical compositions, including anti-inflammatory and thrombolytic or anti-thrombotic agents (e.g. columns 16-18) (see entire document, including Summary of the Invention; Detailed Description of the Invention).

Although Cummings et al. and Larsen et al. do not disclose all of the effective amounts recited in the instant claims 18-20, Cummings et al. and Larsen et al. teach the art known provision effective amounts of PSGL which inhibit P-selectin binding to treat thrombotic conditions to meet the severity of the condition and the needs of the patients. Therefore, the modes of administration and dosages encompassed by the claimed invention (claims 17-20) would have been met by the ordinary artisan at the time the invention was made to meet the severity of the conditions and the needs of the patients. For example, Larsen et al. also teach various modes of administration and dosing (e.g. pharmaceutical carriers), including combinations of agents would be provided in therapeutically effective amounts either serially or simultaneously sufficient for the needs of the patient, including the nature and severity of the condition being treated according to the attending physician (columns 16-18).).

Given the referenced treating of various conditions associated with thrombotic complications and hypertension, it would have been inherent that such patients would have been identified as being subjects having hypertension.

Although Cummings et al. and Larsen et al. do not disclose the role of LTC_4 in thrombus formation and thrombotic conditions per se, LTC_4 was a known thrombus-inducing agent in thrombus formation and thrombotic conditions. Therefore, one of ordinary skill in the art would have expected that the methods of treating thrombotic conditions in subjects having hypertension taught by Cummings et al. and Larsen et al. would have inhibited the thrombus inducing agent in a subject, including LTC_4 at the time the invention was made.

The persistently high arterial blood pressure or hypertension associated with the various conditions disclosed in the reference would have been intrinsically inhibited or treated by the administration of inhibitory PSGL-1 and fragments as taught by Larsen et al.

Although Cummings et al. and Larsen et al. do not disclose inhibiting hypertension and deep vein thrombosis by inhibiting P-selectin-PSGL-1 interactions per se,

Blann et al., Araeneo et al. and DeFrees et al. all teach the role of such interactions in various thrombotic conditions, including hypertension and deep vein thrombosis at the time the invention was made.

The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 145 USPQ 716, 718 (CCPA 1965). See MPEP 716.01(C).

Again, in contrast to applicant's assertions there was sufficient motivation and expectation in the prior art, the following of record is reiterated for applicant's convenience.

Blann et al. teach that it was known that increased plasma levels of platelet specific products such as soluble P-selectin have been taken to imply increased platelet activation and that reversible platelet activation is present in hypertension (see entire document, including the Introduction). Blann et al. conclude that such changes associated with platelet activation may be partly responsible for the increases risk of thrombotic stroke and indicates that therapeutic strategies aimed at rescuing platelet activity may be beneficial (page 608, column 2, last paragraph).

Araneo et al. teach methods of preventing or reducing reperfusion injuries, including preventing or reducing pulmonary hypertension via inhibiting the expression of P-selectin on endothelium (see entire document, including Summary of the Invention on columns 10-11 and Detailed Description of the Invention, including columns 11, 17 and Examples).

DeFrees et al. teach inhibitors of P-selectin-ligand interactions are especially useful in minimizing tissue damage that accompanies thrombotic disorders, including having therapeutic value in treating patients with stroke, deep vein thrombosis and pulmonary embolism / hypertension (see entire document, including column 45, paragraph 2).

One of ordinary skill in the art at the time the invention was made would have been motivated to administer PSGL-1, fragments and chimeric constructs thereof, provided they had the properties of inhibiting P-selectin or PSGL-1-mediated interactions and inflammatory responses, as taught by Cummings et al. and Larsen et al. to treat patients with various thrombotic conditions and complications associated with hypertension, including atherosclerosis, stroke, deep vein thrombosis and pulmonary embolism/hypertension.

Given the teachings of Cummings et al. and Larsen et al. to inhibit PSGL-1-mediated interactions and inflammatory responses, including those associated with coronary/thrombotic conditions and complications associated with hypertension, the ordinary artisan would have had a reasonable expectation of success at the time the invention was made to treat or inhibit thrombosis in patients having hypertension, to increase the movement of cells relative to blood vessels and to inhibit the effect of thrombus-inducing agents, as properties of such treatment of PSGL-1-mediated interactions and inflammatory responses.

Given the role and indication of P-selectin in platelet activation and various thombotic disorders and complications and the clear teaching of the prior art to target such platelet activation via P-selectin, such targeted conditions and disorders would have included hypertension, including pulmonary hypertension as well as deep vein thrombosis, as taught by Blann et al., Araneo et al. and DeFrees et al. From the teachings of the references, it was apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Further, in contrast to teaching away, a prior art reference may be considered to teach away when "a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." See In re Gurley, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994).

Here in contrast to applicant's assertions of teaching away by the prior art because the references indicate a successful method of therapy using non-PSGL proteins; there is no discouragement nor skepticism in the prior art for administering PSGL-1 treat subjects with hypertension and in fact, the evidence stands for a different conclusion than applicant, particularly in light of the prior art teachings to provide PSGL-1 to treat a number of conditions as well as the underlying mechanisms associated with thrombosis and hypertension, including those subjects having hypertension

Applicant's arguments have not been found persuasive.

7. Claim 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Claims 1-20, 25-28, 31-42, 45 and 50-57 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cummings et al. (U.S. patent No. 5,464,778) AND Larsen et al. (U.S. Patent No. 5,840,679) in further view of Blann et al. (Journal of Human Hypertension 11: 607-609, 1997), Araneo et al. (U.S. Patent No. 6,150,348) and DeFrees et al. (U.S. Patent No. 5,604,207) and in further evidence of The Merck Manual of Diagnosis and Therapy, Seventeenth Edition, edited by Beers et al., Merck Research Laboratories, Whitehouse Station, NJ, 1999)
as applied to claims 1-20, 25-27, 31-40, 45 and 50-57 above and in further evidence of Maugeri et al. (Thrombosis and Haemostasis 72: 450-456, 1994) and Johnston et al. (J. Immunol. 159: 4514-4523, 1997) essentially for the reasons of record.

Applicant's arguments, filed 6/15/05, and the examiner's rebuttal are essentially the same as of record and addressed herein above in the rejections under 35 USC 102 and 103.

Applicant have noted that both Maugeri and Johnson describe a mechanistic link between P-selectin and LTC4, but do not disclose a thrombotic effect of P-selectin or PSGL-1.

Applicant argues that the prior art does not explicitly or impliedly provide sufficient motivation and expectation of success in arriving at applicant's invention.

The teachings of Cummings et al. and Larsen et al. in further view of Blann et al. (Journal of Human Hypertension 11: 607-609, 1997), Araneo et al. (U.S. Patent No. 6,150,348), DeFrees et al. (U.S. Patent No. 5,604,207) and The Merck Manual of Diagnosis and Therapy, Seventeenth Edition are set forth above and are of record.

Cummings et al. and Larsen et al. differ from the claimed methods by the claimed methods by not disclosing the role of LTC_4 in thrombus formation and thrombotic conditions per se, LTC_4 was a known thrombus-inducing agent in thrombus formation and thrombotic conditions as taught by Maugeri et al. and

In contrast to applicant's assertions of lack of relevant teachings,
Maugeri et al. teach that is was known at the time the invention was made that LTC_4 was one of the biologically active substances that play a role in inflammation and thrombosis (see entire document). Further, Maugeri et al. teach that anti-P-selectin antibodies can inhibit LTC_4 production (see Abstract, Results and Discussion). Further, Marugeri et al. discuss that neutrophil-platelet interaction via P-selectin plays a role in LTC_4 cooperative synthesis, which play a significant role in sever pathophysiological situations including inflammatory and cardiovascular diseases (see Abstract, Results and Discussion).

In addition, Johnston et al. teach that anti-P-selectin antibodies can inhibit inflammatory conditions, including LTC_4 induced leukocyte rolling in vivo (see entire document, including Abstract, Results and Discussion).

Again, although Cummings et al. and Larsen et al. do not disclose the role of LTC_4 in thrombus formation and thrombotic conditions per se, LTC_4 was a known thrombus-inducing agent in thrombus formation and thrombotic conditions, as evidenced by Maugeri et al. and Johnston et al.. Therefore, one of ordinary skill in the art would have expected that the methods of treating thrombotic conditions taught by Cummings et al. and Larsen et al. would have inhibited the thrombus inducing agent in a subject, including LTC_4 at the time the invention was made. Further, both Maugeri et al. And Johnston et al. teach that inhibiting P-selectin-mediated events results in the inhibition of thrombus-inducing biological substances, including LTC_4.

One of ordinary skill in the art at the time the invention was made would have been motivated to administer PSGL-1, fragments and chimeric constructs thereof, provided they had the properties of inhibiting PSGL-1-mediated interactions and inflammatory responses, as taught by Cummings et al. and Larsen et al. to treat patients with various thrombotic conditions. Given the teachings of Cummings et al. . and Larsen et al. to inhibit PSGL-1-mediated interactions and inflammatory responses, including those associated with coronary/thrombotic conditions, the ordinary artisan would have had a reasonable expectation of success at the time the invention was made to treat or inhibit and to inhibit the effect of thrombus-inducing agents, as properties of such treatment of PSGL-1-mediated interactions and inflammatory responses.

Given the role and indication of P-selectin in platelet activation and various thombotic disorders and the clear teaching of the prior art to target such platelet activation via P-selectin, such targeted conditions and disorders would have included hypertension, including pulmonary hypertension as well as deep vein thrombosis, as taught by Blann et al., Araneo et al. and DeFrees et al. From the teachings of the references, it was apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was prima facie obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

The arguments of counsel cannot take the place of evidence in the record. In re Schulze, 145 USPQ 716, 718 (CCPA 1965). See MPEP 716.01(C).

In response to applicant's arguments that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine 5 USPQ2d 1596 (Fed. Cir 1988) and In re Jones 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case the teachings of the prior art pertain to inhibiting P-selectin : PSGL-1 mediated and / or platelet-mediated interactions and functions in the treatment of various conditions and diseases associated or linked with hypertension and indicate success in administering PSGL to treat such conditions and diseases to solve a similar problems associated with the above-mentioned conditions and diseases would have led one of ordinary skill in the art at the time the invention was made to combine the references to solve a well known problem in the art. The strongest rationale for combining reference is a recognition, expressly or implicitly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent that some advantage or expected beneficial result would have been produced by their combination In re Sernaker 17 USPQ 1, 5-6 (Fed. Cir. 1983) see MPEP 2144.

Once a prima facie case of obviousness has been made the burden of going further is shifted to applicant. In re Keller, 208 USPQ 871, 882 (CCPA 1981). This applicant has not done, but rather argues the references individually and not their combination. One cannot show non-obviousness by attacking references individually where the rejections are based on a combination of references. In re Young, 150 USPQ 725 (CCPA 1968). See MPEP 2145.

Applicant's arguments have not been found persuasive.

8. No claim is allowed.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phillip Gambel whose telephone number is (571) 272-0844. The examiner can normally be reached Monday through Thursday from 7:30 am to 6:00 pm. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571) 272-0841.

The fax number for the organization where this application or proceeding is assigned is 571-273-800.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phillip Gambel

Phillip Gambel, PhD.
Primary Examiner
Technology Center 1600
September 6, 2005